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MEMORANDUM CH2MHILL

Response to the Virginia Department of Environmental Quality's Comments on the SWMU 14 Draft Remedial Investigation

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Below is the response to VADEQ's comments on the *Draft Remedial Investigation SWMU 14, Q-50 Satellite Accumulation Area, Naval Station Norfolk.* The responses to the comments have been incorporated in the revised draft RI report.

Comment 1. Table 2.7. Beginning with iron, in the maximum concentration column, some numbers are shown with up to 3 decimal places of zeros behind them, while the rest are not. The table would be easier to review without extraneous zeros, especially when the print is small and it's difficult to distinguish a comma from a decimal in some cases. Also, the screening value for chromium is incorrect, it should be 1.1E+02. This eliminates chromium as a COPC in surface water.

RESPONSE: Extraneous zeros have been taken off numbers in the maximum concentration column and the screening value of chromium has been changed to 1.1E+02. Chromium has been eliminated as a COPC in surface water

Comment 2. Table 5.1. The following target organs can be added to the table.

Nickel – kidney, liver, spleen

Thallium – liver, blood, hair

Cyanide – thyroid, CNS

Aroclor 1254 – eyes

Chromium – GI tract

Vanadium – liver

Barium – cardiovascular

Benzene – immune system

RESPONSE: Comment will be incorporate.

Comment 3. Table 5.2. Please add fetus to the target organ for Barium.

RESPONSE: Comment will be incorporate.

Comment 4. Table 6.1. The following weight of evidence/carcinogenic groups should be changed: Copper, cyanide, mercury, silver, acetone, chlorobenze, acenaphthylene, dibenzofuran should all be classified as D carcinogens.

According to IRIS, 2-methlylphenol and 4-methylphenol should be classified as C carcinogens.

According to HEAST, gamma-BHC (lindane) should be classified as a B2/C cacinogen. Region III RBC Tables also indicate that it is a carcinogen.

Thallium, vanadium and indeno(1,2,3-cd)pyrene are listed in the table twice.

It would be helpful if this table was organized either alphabetically or by categories like the other tables.

RESPONSE: Copper, cyanide, mercury, silver, acetone, chlorobenzene, acenaphthylene, dibenzofuran are now classified as D carcinogens. 2-methlylphenol and 4-methylphenol are now classified as C carcinogens and gamma-BHC (lindane) is now classified as a B2/C cacinogen. Thallium, vanadium, and indeno(1,2,3-cd)pyrene are now only listed one time each in the table. This table has been reorganized alphabetically for easier viewing.

Comment 5. Table 6.2. VDEQ recognizes nickel as an A carcinogen for inhalation based on the IRIS classification for nickel refinery dust and the unit risk of .24 mg/m3 and a slope factor of .84 mg/kg-day. HEAST also contains the slope factor.

Copper, cyanide, mercury, acetone, chlorobenzene, acenaphthylene, dibenzofuran and flourene should all be classified as D carcinogens.

According to IRIS, napthalene should be classified as a C carcinogen for inhalation.

According to HEAST, gamma-BHC (lindane) should be classified as a B2/C carcinogen. Region III RBC Tables also indicate that it is a carcinogen.

RESPONSE: Nickel is now classified as an A carcinogen for inhalation and has a unit risk of 0.24 mg/m3 and a slope factor of 0.84 mg/kg-day. Copper, cyanide, mercury, acetone, chlorobenzene, acenaphtylene, dibenzofuran, and flourene are now classified as D carcinogens. Napthalene is now classified as a C carcinogen for inhalation. Gamma-BHC (lindane) is now classified as a B2/C carcinogen.

Comment 6. Table 8.25. The total risk across all pathways should be 1.4E-03 instead of 7.8E-04. The corresponding text is correct, only the table is incorrect.

RESPONSE: The total risk across all pathways will be corrected.

Comment 7. Section 5.7.3 It would be helpful if the text included the numerical cancer risks and HIs when they exceed acceptable risk so that someone reading the text can characterize the risk without having to look through RAGS D tables to determine how much the risk exceeded acceptable levels.

RESPONSE: The numerical cancer risks and HIs have been included in the text when they exceed acceptable risk.